

The embodiments of the invention in which an exclusive privilege or property is claimed are defined as follows:

1. A counterbalancing device for use in conjunction with a tanning system, said tanning system generating tanning light rays for tanning an intended user, said tanning system having a stationary lower unit and a pivotable upper unit pivotally attached to said lower unit by a unit hinge for pivotable movement therebetween about a unit pivot axis, said upper and lower units respectively defining longitudinally extending upper and lower unit front and rear ends, said upper and lower units respectively defining transversally extending upper and lower unit opposed side ends, said counterbalancing device comprising:

- a first component, said first component having a first component base wall, said first component base wall defining a first component inner surface and a substantially opposed first component outer surface;
- a second component, said second component having a second component base wall, said second component base wall defining a second component inner surface and a substantially opposed second component outer surface;
- a device hinge means for hingedly connecting said first and second components together for relative pivotal movement therebetween about a component pivot axis between a device closed configuration wherein said first and second component inner surfaces are in a substantially parallel and proximal relationship relative to each other and a device open configuration wherein said first and second component inner surfaces are in a substantially angled and spaced relationship relative to each other;
- a biasing means for generating a biasing force urging said first and second components towards

said device open configuration, said biasing means having a biasing means first abutment segment, a substantially opposed biasing means second abutment segment and a biasing means biasing segment extending integrally therebetween;

- a spring-to-component coupling means for operatively coupling said spring first and second abutment segments in abutting contact respectively with said first and second component inner surfaces;

- a component-to-unit coupling means for operatively coupling said first and second components respectively to said upper and lower units;

whereby said biasing means is calibrated so that said biasing force substantially counterbalances the weight of said upper unit.

2. A counterbalancing device as recited in claim 1 wherein said biasing means includes a torsion spring, said torsion spring having a spring first abutment segment, a substantially opposed spring second abutment segment and a spring coiled segment extending integrally therebetween, said spring first and second abutment segments being configured, sized and positioned for abuttingly contacting respectively said first and second component inner surfaces, said spring coiled segment being able to generate a biasing force for biasing said first and second components towards said device open configuration.

3. A counterbalancing device as recited in claim 2 wherein said biasing means includes at least two independent torsion springs operatively coupled to said first and second components so as to independently work in parallel to commonly generate said biasing force.

4. A counterbalancing device as recited in claim 2 wherein said spring-to-component coupling means includes

- a first “U”-shaped bolt and a second “U”-shaped bolt each having a pair of bolt legs;
- a pair of first spring attachment apertures extending through said first component base wall, said first spring attachment apertures being configured, sized and positioned for receiving said pair of bolt legs of said first “U”-shaped bolt;
- a pair of second spring attachment apertures extending through said second component base wall, said second spring attachment apertures being configured, sized and positioned for receiving said pair of bolt legs of said second “U”-shaped bolt.

5. A counterbalancing device as recited in claim 1 wherein said first component base wall defines a pair of longitudinally opposed first base wall end edges and said second component base wall defines a pair of longitudinally opposed second base wall end edges; said first component base wall being provided with a first base wall end flange extending substantially perpendicularly from each of said first base wall end edges; said second component base wall being provided with a second base wall end flange extending substantially perpendicularly from each of said second base wall end edges; each of said first base wall end flanges being provided with a first end flange hinge segment projecting substantially outwardly therefrom; each of said second base wall end flanges being provided with a second end flange hinge segment projecting substantially outwardly therefrom; each pair of adjacent first and second flange hinge segments being substantially in register with each other in a substantially proximal and parallel relationship relative to each other; said device hinge means including a device hinge axle pivotally connecting together each pair of adjacent first and second flange hinge segments.

6. A counterbalancing device as recited in claim 1 wherein said unit hinge includes

- an upper unit hinge arm extending from said upper unit rear end substantially adjacent each of said upper unit side ends;
- a lower unit hinge arm extending from said lower unit rear end substantially adjacent each of said lower unit side ends;
- a unit hinge axle pivotally connecting together each pair of adjacent upper and lower unit hinge arms.

7. A counterbalancing device as recited in claim 6 wherein said first component base wall defines a pair of longitudinally opposed first base wall end edges and said second component base wall defines a pair of longitudinally opposed second base wall end edges; said first component base wall being provided with a first base wall end flange extending substantially perpendicularly from each of said first base wall end edges; said second component base wall being provided with a second base wall end flange extending substantially perpendicularly from each of said first base wall end edges; each of said first base wall end flange being provided with a first end flange hinge segment projecting substantially outwardly therefrom; each of said second base wall end flange being provided with a second end flange hinge segment projecting substantially outwardly therefrom; each pair of adjacent first and second flange hinge segments being substantially in register with each other in a substantially proximal and parallel relationship relative to each other; said device hinge means including a device hinge axle pivotally connecting together each pair of adjacent first and second flange hinge segments; said device and unit hinge axles being in a substantially collinear relationship relative to each other.

8. A counterbalancing device as recited in claim 7 wherein

- said first and second end flange hinge segments are respectively provided with first and second end flange hinge apertures extending therethrough;
- said upper and lower unit hinge arms are respectively provided with upper and lower unit hinge apertures extending therethrough;
- a pair of adjacent first and second end flange hinge apertures is positioned substantially in register with a corresponding pair of upper and lower unit hinge apertures so that an hinge bolt acts as both said device and unit hinge axles.

9. A counterbalancing device as recited in claim 1 further comprising

- an upper unit hinge arm extending from said upper unit rear end substantially adjacent each of said upper unit side ends; each of said upper unit hinge arm including an upper arm first segment attached to said upper unit, an upper arm second segment extending substantially downwardly at an angle relative to said upper arm first segment from a position located substantially adjacent said upper unit rear end, an upper arm third segment extending substantially rearwardly from said upper arm second segment;
- a lower unit hinge arm extending from said lower unit rear end substantially adjacent each of said lower unit side ends; each of said lower unit hinge arm including a lower arm first segment attached to said lower unit, a lower arm second segment extending substantially upwardly at an angle relative to said lower arm first segment from a position located substantially adjacent said lower unit rear end, a lower arm third segment extending substantially rearwardly from said lower arm second segment;

- a unit hinge axle pivotally connecting together said upper and lower arm second segments so that said upper and lower arm first and third segments pivot together in a scissor-like manner.

10. A counterbalancing device as recited in claim 9 further comprising a third segment-to-component coupling means extending between said upper and lower arm third segments and said second and first components for coupling said upper and lower arm third segments respectively to said second and first components.

11. A counterbalancing device as recited in claim 9 wherein said first component base wall defines a pair of longitudinally opposed first base wall end edges and said second component base wall defines a pair of longitudinally opposed second base wall end edges; said first component base wall being provided with a first base wall end flange extending substantially perpendicularly from each of said first base wall end edges; said second component base wall being provided with a second base wall end flange extending substantially perpendicularly from each of said first base wall end edges; each of said first base wall end flange being provided with a first end flange hinge segment projecting substantially outwardly therefrom; each of said second base wall end flange being provided with a second end flange hinge segment projecting substantially outwardly therefrom; each pair of adjacent first and second flange hinge segments being substantially in register with each other in a substantially proximal and parallel relationship relative to each other; said device hinge means including a device hinge axle pivotally connecting together each pair of adjacent first and second flange hinge segments; said device and unit hinge axles being in a substantially collinear relationship relative to each other; said counterbalancing device also including a third segment-to-component coupling means extending between one of

said upper and lower arm third segments and said second and first components for coupling said one of said upper and lower arm third segments respectively to said second and first components.

12. A counterbalancing device as recited in claim 11 wherein said third segment-to-component coupling means includes

- an upper arm coupling aperture and a lower arm coupling aperture extending respectively through said one of said upper and lower arm third segments;
- a first end flange coupling aperture and a second end flange coupling aperture extending respectively through said first and second end flanges;
- a first arm-to-flange coupling bolt and a second arm-to-flange coupling bolt extending respectively through said upper arm coupling aperture and said second end flange coupling aperture and through said lower arm coupling aperture and said first end flange coupling aperture;
- a first end flange hinge aperture and a second end flange hinge aperture extending respectively through said first and second end flanges;
- an upper unit hinge aperture and a lower unit hinge aperture extending respectively through said upper and lower unit hinge arms; said pair of adjacent first and second hinge apertures is positioned substantially in register with a corresponding pair of upper and lower unit hinge apertures so that an hinge bolt acts as both said device and unit hinge axles.

13. A counterbalancing device as recited in claim 12 further comprising a biasing force adjustment means for allowing adjustment of the magnitude of said biasing force.

14. A counterbalancing device as recited in claim 12 wherein either one of said upper or lower arm coupling apertures has a substantially elongated and vertical configuration.

15. A counterbalancing device as recited in claim 1 wherein said lower unit includes

- at least one lower tanning lamp;
- a lower lamp chamber defining a lower chamber inner volume for housing said at least one lower tanning lamp, said lower lamp chamber having a lower chamber tanning aperture extending therethrough for allowing at least part of said tanning light rays emanating from said lower tanning lamp to pass therethrough;
- a substantially transparent lower supporting platform extending substantially across said lower chamber tanning aperture for supporting said intended user while allowing said at least part of said tanning light rays emanating from said lower tanning lamp to pass therethrough;
- said lower supporting platform being movably coupled to said lower lamp chamber for movement relative thereto between a lower platform open configuration allowing access to said lower chamber inner volume and a lower platform closed configuration preventing access to said lower chamber inner volume.

16. A counterbalancing device as recited in claim 15 wherein said lower supporting platform is pivotally attached to said lower lamp chamber for pivotal movement relative thereto about a lower platform pivotal axis



17. A counterbalancing device as recited in claim 15 further comprising a lower platform supporting means coupled to said lower supporting platform for selectively maintaining said lower supporting platform in said lower platform open configuration.

18. A counterbalancing device as recited in claim 15 further comprising a lower platform releasable locking means coupled to said lower supporting platform for releasably locking said lower supporting platform in said lower platform closed configuration.

19. A counterbalancing device as recited in claim 1 wherein said upper unit includes

- at least one upper tanning lamp;
- a upper lamp chamber defining a upper chamber inner volume for housing said at least one upper tanning lamp, said upper lamp chamber having a upper chamber tanning aperture extending therethrough for allowing at least part of said tanning light rays emanating from said upper tanning lamp to pass therethrough;
- a substantially transparent upper platform extending substantially across said upper chamber tanning aperture for allowing said at least part of said tanning light rays emanating from said upper tanning lamp to pass therethrough;
- said upper platform being movably coupled to said upper lamp chamber for movement relative thereto between a upper platform open configuration allowing access to said upper chamber inner volume and a upper platform closed configuration preventing access to said upper chamber inner volume.

20. A counterbalancing device as recited in claim 19 wherein said upper platform is pivotally attached to said upper lamp chamber for pivotal movement relative thereto about an upper platform pivotal axis

21. A counterbalancing device as recited in claim 19 further comprising a upper platform pivotal damping means coupled to said upper platform for damping the pivotal movement of said upper platform towards said upper platform open configuration.

22. A counterbalancing device as recited in claim 19 further comprising a upper platform releasable locking means coupled to said upper platform for releasably locking said upper platform in said upper platform closed configuration.

23. A counterbalancing device as recited in claim 19 further comprising

- a high pressure lamp positioned within said upper lamp chamber substantially adjacent one of said upper unit side ends;
- a UV filter mounted to said upper platform, said UV filter being configured, positioned and sized so as to filter light rays emanating from said high pressure lamp when said upper platform is in said upper platform closed configuration.

24. A counterbalancing device as recited in claim 23 further comprising a switch means for sensing the presence of said UV filter and only allowing said high pressure lamp to be turned on upon the detection of the presence of said UV filter.